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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,470

07/01/2003

Dimitri Peter Zafiroglu

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EXAMINER

MATZEK, MATTHEW D

ART UNIT

PAPER NUMBER

1771

MAIL DATE

DELIVERY MODE

10/03/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/611,470	<b>Applicant(s)</b> ZAFIROGLU, DIMITRI PETER	
	<b>Examiner</b> Matthew D. Matzek	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-62 and 68-98 is/are pending in the application.
- 4a) Of the above claim(s) 23-37 and 78-84 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-22, 38-61 and 95 is/are allowed.
- 6) ☒ Claim(s) 62, 68-77, 84, 85 and 96-98 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/13/2007 has been entered.

***Response to Amendment***

2. The Declaration filed on 7/13/2007 under 37 CFR 1.131 is sufficient to overcome the Gillette et al. (US 2003/023170) reference. Therefore all rejections that rely upon Gillette et al. are hereby withdrawn. The other Declaration provided on 7/13/2007 has been considered and Examiner appreciates the information provided to better appreciate the state of technology in the instant invention's field of endeavor at the time of the invention.

3. Independent claims 1 and 62 have been amended and new claims 92-98 have been added and contain no new matter. Claims 1-22, 38-62 and 68-98 are currently active, and claims 23-37 and 63-67 are withdrawn from consideration. The previous anticipatory rejections of claim 1 have been withdrawn as the references of Record fail to teach the now claimed density and lateral distance.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 62, 76, 77, 88, 89, 92, 94 and 97 are rejected under 35 U.S.C. 102(b) as being anticipated by Bushnell (US 3,444,035).

Bushnell teaches the creation of a laminar breathable fabric comprising a knitted top layer a bottom back-up layer and an intermediate layer of adhesive. The entire laminate may be embossed under heat and pressure to produce a pattern of impressions and raised portions at the top face, imparting a three-dimensional character (col. 1, lines 11-26). The back-up layer may be either woven or knitted (col. 1, lines 59-72). As shown in Figures 2 and 2a the top and bottom surfaces of the adhesive layer are non-planar and follow substantially the same contour. The embossed patterns impart a three-dimensional character (col. 1, lines 20-25). The new claim limitations are anticipated as Figures 3 and 4 illustrate that the thermoplastic layer 15 is intertwined with the non-thermoplastic layer 16 and when the intertwined fabric is embossed to adhesive layer 13 the thermoplastic fiber that is looped under the non-thermoplastic fiber to form fabric 11 would necessarily be located adjacent to the adhesive layer. Furthermore, the density of the depressed (embossed) areas is necessarily greater than that of the elevated areas because fabric layer 11 and adhesive layer 13 are combined into one, which would form a denser construct when compared to the elevated area consisting of porous fabric layer 11, alone.

***Claim Rejections - 35 USC § 103***

5. Claims 73-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035). Bushnell fails to teach or suggest a ratio of the elevation of the elevated area,  $D$ , to the thickness of the fibrous layer,  $T_f$ , in the elevated area.

Examiner takes the position that since the Specification fails to teach or suggest any criticality to the instantly claimed values of the height of the elevated area relative to the thickness of the fibrous layer in said elevated area the claimed values merely serve to

provide the article with a desired aesthetic. It has been shown that matters relating to ornamentation only, and having no mechanical function, cannot be relied on where claims are not directed to design but are structural claims. *In re Seid* (CCPA) 73 USPQ 431.

6. Claims 71, 91, 93, 96 and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035) as applied to claim 62 above, and further in view of Cruise et al. (US 5,874,159). Bushnell fails to teach or suggest the use of spunlaced fabric for the outermost layer.

a. Cruise et al. disclose a nonwoven fabric composite comprising two layers of fabric sheet bonded together with binder. The applied invention retains the qualities of a spunlaced fabric while having the durability comparable to traditional knitted or woven fabrics (abstract). The applied invention may be used as a garment (col. 1). The two layers are bonded so that the adhesive penetrates into at least one of the fabric layers, without substantially penetrating through to the outer surface of the fabric (col. 2, lines 12-23). The examples provide for homogenous spunlaced layers.

b. Since Bushnell and Cruise et al. are from the same field of endeavor (i.e. garments), the purpose disclosed by Cruise et al. would have been recognized in the pertinent art of Bushnell.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Bushnell with the motivation of replacing a knitted or woven fabric with a spunlaced fabric as disclosed by Cruise et al. (US 5,874,159).

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7. Claims 1-22, 41, 46, 47, 51-55, 68-70, 72 and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035) as applied to claim 62 above, and further in view of Zafiroglu (US 6,063,473). Bushnell fails to teach or suggest the claimed combined density in the depressed areas.

a. Zafiroglu discloses an abrasion-resistant composite comprising resin and pile-like fibers immobilized in said resin (abstract). The density of the resin-containing pile-like stratum is at least 0.5 gsm and preferably 0.7-1.0 gsm (col. 4, lines 4-14). The invention of Zafiroglu may be used in garments and upholstery (col. 8, lines 24-40). The pile-like fabric has a density of 0.05-0.5 gsm (abstract).

b. Since Bushnell and Zafiroglu are from the same field of endeavor (i.e. garments), the purpose disclosed by Zafiroglu would have been recognized in the pertinent art of Bushnell.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the depressed regions of Bushnell with the densities of Zafiroglu with the motivation of providing the invention of Bushnell with abrasion resistance as disclosed by Zafiroglu (abstract).

d. Amended claim 1 now contains limitations pertaining to the lateral distance between adjacent depressed areas and the height of the elevated area relative to the thickness of the fibrous layer in said elevated area. Examiner takes the position that since the Specification fails to teach or suggest any criticality of the instantly claimed values of the lateral distance between adjacent depressed areas, the depth of adhesive penetration, the design of the depressed areas and the height of the elevated area relative to the

thickness of the fibrous layer in said elevated area the claimed values merely serve to provide the article with a desired aesthetic. It has been shown that matters relating to ornamentation only, and having no mechanical function, cannot be relied on where claims are not directed to design but are structural claims. *In re Seid* (CCPA) 73 USPQ 431. Claim 22 is rejected under the same premise as the limitation of having the fibrous outer layer be of a different color than the adhesive layer is directed to a desired aesthetic and fails to impact the mechanical function of the invention.

8. Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035) in view of Zafiroglu (US 6,063,473) as applied to claim 1 above, and further in view of Narens et al. (US 4,324,824). Bushnell and Zafiroglu fail to teach or suggest a liquid impermeable layer.

a. Narens et al. disclose a tufted pile floor covering with piling coated fibrous material and a water (liquid) impermeable layer (col. 6, lines 3-15).

b. Since Bushnell and Narens et al. are from the same field of endeavor (i.e. upholstery and floor coverings), the purpose disclosed by Narens et al. would have been recognized in the pertinent art of Bushnell.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the invention of Bushnell with a liquid impervious layer with the motivation of making it easy to clean as set forth by Narens et al. (col. 1, lines 41-49). It would have also been obvious to impart the invention of Bushnell et al. with a gas impermeable layer with the motivation of preventing the article from passing unwanted smells through its body.

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9. Claims 42 and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035) in view of Zafiroglu (US 6,063,473) as applied to claim 1 above, and further in view of Cruise et al. (US 5,874,159). Bushnell and Zafiroglu fail to teach or suggest the use of spunlaced fabric for the outermost layer.

a. Cruise et al. disclose a nonwoven fabric composite comprising two layers of fabric sheet bonded together with binder. The applied invention retains the qualities of a spunlaced fabric while having the durability comparable to traditional knitted or woven fabrics (abstract). The applied invention may be used as a garment (col. 1). The two layers are bonded so that the adhesive penetrates into at least one of the fabric layers, without substantially penetrating through to the outer surface of the fabric (col. 2, lines 12-23). The examples provide for homogenous spunlaced layers. The spunlaced fabric of Cruise et al. may comprise staple fibers and wood pulp (col. 1, lines 19-56) and may have a basis weight of  $68 \text{ g/m}^2$  ( $2 \text{ oz/yd}^2$ ) (Example 1).

b. Since Bushnell and Cruise et al. are from the same field of endeavor (i.e. garments), the purpose disclosed by Cruise et al. would have been recognized in the pertinent art of Bushnell.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Bushnell with the motivation of replacing a knitted or woven fabric with a spunlaced fabric as disclosed by Cruise et al. (US 5,874,159).

10. Claims 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035) in view of Zafiroglu (US 6,063,473) as applied to claim 1 above, and further in



view of Makansi (US 5,882,770). Bushnell and Zafiroglu fail to teach or suggest the use of spunlaced fabric for the outermost layer.

a. Makansi teaches a fibrous sheet with its outer surface embossed with a pattern of fine grooves (Abstract). The outer fibrous sheet may be woven, stitch-bonded or knit (col. 3, lines 10-14).

b. Since Bushnell and Makansi are from the same field of endeavor (i.e. embossed fabrics), the purpose disclosed by Makansi would have been recognized in the pertinent art of Bushnell

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Bushnell with the fabrics of Makansi. The skilled artisan would have been motivated by the creation of an article that produces rainbow and/or hologram images on exposure to light (Abstract).

11. Claims 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035) in view of Zafiroglu (US 6,063,473) as applied to claim 1 above, and further in view of Addie et al. (US 3,924,040). The disclosures of Bushnell and Zafiroglu are silent as to the use of lace fabrics as a facing layer.

a. Addie et al. teach the use of applying a nonwoven material to a scrim and then embossing the composite material (Abstract). For examining purposes, Examiner has interpreted the disclosed scrim as “lace” as the scrim is of an open or coarse weave (col. 1, lines 56-60). The combination of the nonwoven material and the open scrim constitute the closed and open layers, respectively.

b. Since Bushnell and Addie et al. are from the same field of endeavor (i.e. embossed fabrics), the purpose disclosed by Addie et al. would have been recognized in the pertinent art of Bushnell.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Bushnell fabrics of Addie et al. The skilled artisan would have been motivated by the creation of an article that is an improved fabric for use as a wall covering (col. 1, lines 22-25).

12. Claims 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035) in view of Zafiroglu (US 6,063,473) as applied to claim 1 above, and further in view of Taylor (US 4,588,629). Bushnell and Zafiroglu fail to teach or suggest an apertured article.

a. Taylor teaches an embossed fabric comprising a thermoplastic binding layer **10** and a layer of fibers **11** (Abstract). The fiber layer may be dropped or blown in the form of a continuous film or patterned layer by any suitable technique (col. 6, lines 30-45) onto the tacky adhesive layer **10**. This would allow for the fibers to be parallel to the adhesive layer. The adhesive layer may be continuous or discontinuous (col. 5, lines 39-44). As shown in Figure 2 the surface area comprises depressed areas and elevated areas and the fibers in the depressed areas are anchored in the adhesive layer (col. 4, lines 8-10). As shown in Figure 2 the depressed and elevated areas are formed to be non-planar and follow substantially the same contour. The article may employ an apertured structure depending upon the desired aesthetics of the finished product (col. 6, lines 7-48).

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b. Since Bushnell and Taylor are from the same field of endeavor (i.e. upholstery and floor coverings), the purpose disclosed by Taylor would have been recognized in the pertinent art of Bushnell.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the invention of Bushnell with an apertured structure motivated by the desired final aesthetics.

13. Claims 85-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035) as applied to claim 62 above, and further in view of Narens et al. (US 4,324,824). Bushnell fails to teach or suggest a liquid impermeable layer.

a. Narens et al. disclose a tufted pile floor covering with piling coated fibrous material and a water (liquid) impermeable layer (col. 6, lines 3-15).

b. Since Bushnell and Narens et al. are from the same field of endeavor (i.e. upholstery and floor coverings), the purpose disclosed by Narens et al. would have been recognized in the pertinent art of Bushnell.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the invention of Bushnell with a liquid impervious layer with the motivation of making it easy to clean as set forth by Narens et al. (col. 1, lines 41-49). It would have also been obvious to impart the invention of Bushnell et al. with a gas impermeable layer with the motivation of preventing the article from passing unwanted smells through its body.

14. Claim 90 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bushnell (US 3,444,035) as applied to claim 62 above, and further in view Taylor (US 4,588,629). Bushnell fails to teach or suggest an apertured article.

a. Taylor teaches an embossed fabric comprising a thermoplastic binding layer **10** and a layer of fibers **11** (Abstract). The fiber layer may be dropped or blown in the form of a continuous film or patterned layer by any suitable technique (col. 6, lines 30-45) onto the tacky adhesive layer **10**. This would allow for the fibers to be parallel to the adhesive layer. The adhesive layer may be continuous or discontinuous (col. 5, lines 39-44). As shown in Figure 2 the surface area comprises depressed areas and elevated areas and the fibers in the depressed areas are anchored in the adhesive layer (col. 4, lines 8-10). As shown in Figure 2 the depressed and elevated areas are formed to be non-planar and follow substantially the same contour. The article may employ an apertured structure depending upon the desired aesthetics of the finished product (col. 6, lines 7-48).

b. Since Bushnell and Taylor are from the same field of endeavor (i.e. upholstery and floor coverings), the purpose disclosed by Taylor would have been recognized in the pertinent art of Bushnell.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the invention of Bushnell with an apertured structure motivated by the desired final aesthetics. This is also true when deciding upon the ratio of the elevation of the elevated area,  $D$ , to the thickness of the fibrous layer  $T_f$ , in the elevated area. The ratio determines the final look or aesthetic of the article and as such may be optimized to create the most aesthetically pleasing structure.

***Response to Arguments***

15. Applicant's arguments filed 7/13/2007 pertaining to rejections based upon Bushnell have been fully considered but they are not persuasive.

16. Applicant argues that Bushnell fails to teach or suggest a fibrous outer layer comprising thermoplastic fibers located adjacent to the adhesive layer. As Examiner has addressed *supra*, the outer fibrous layer of Bushnell does in fact have thermoplastic fibers located adjacent to the adhesive layer.

17. Applicant argues that claim 96 is patentable over Bushnell because the applied reference fails to teach or suggest a homogenous outer layer. Examiner has relied upon Cruise et al. for the limitation of the homogenous fibrous outer layer.

18. Applicant argues that Bushnell fails to teach or suggest that the density of the depressed areas is greater than the density of the elevated areas. As addressed *supra*, the density of the depressed (embossed) areas is necessarily greater than that of the elevated areas because fabric layer 11 and adhesive layer 13 are combined into one, which would form a denser construct when compared to the elevated area consisting of fabric layer 11, alone.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is 571.272.2423. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571.272.1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew D Matzek/  
Examiner, Art Unit 1771

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